



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,256	03/25/2004	Bartley J. Patton	56.0730	6906
27452	7590	01/24/2006		
SCHLUMBERGER TECHNOLOGY CORPORATION IP DEPT., WELL STIMULATION 110 SCHLUMBERGER DRIVE, MD1 SUGAR LAND, TX 77478			EXAMINER COY, NICOLE A	
			ART UNIT 3672	PAPER NUMBER

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/809,256	PATTON ET AL.	
	Examiner	Art Unit	
	Nicole Coy	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The examiner agrees that Fikes does not disclose the invention as amended. However, Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Specification

2. The substitute specification filed 11/14/2005 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: The wrong specification was amended. Please see replacement sheet filed 10/25/04.

Claim Objections

3. Claims 1-12 are objected to because of the following informalities: There is no antecedent basis for the recitation "the load compensation system" in claims 1 and 12. The examiner recommends that the applicant amends the recitation so that it reads "the heave compensation system." Appropriate correction is required.

4. Claim 13 is objected to because of the following informalities: Claim 13 refers to the method of claim 14. The examiner interprets this claim as depending from the method claim 12. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 contains two embodiments: (1) that the flexible riser comprises a flexible pipe; and (2) that the flexible riser comprise a pressure containing spherical joint. Based on the specification it is unclear how the flexible riser can comprise both a flexible pipe and a pressure containing spherical joint.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Roodenburg et al. (US Publication Number 2004/0151549).

Roodenburg et al. discloses a system for reducing the effects of heave movements of a wellhead in an offshore drilling device comprising: a frame (1); a coiled

Art Unit: 3672

tubing stack supported by the frame (496); and a heave compensation system for controlling an amount of load transferred from the coiled tubing stack to the wellhead to reduce relative movements between the coiled tubing stack and the wellhead (see page 4 paragraph [0079]).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roodenburg et al. in view of Wetch et al. (USP 6,688,814).

Roodenburg et al. teaches a system for reducing the effects of heave movements of a wellhead in an offshore drilling device comprising: a frame (1); a coiled tubing stack supported by the frame (496); a heave compensation system for controlling an amount of load transferred from the coiled tubing stack to the wellhead to reduce relative movements between the coiled tubing stack and the wellhead (see page 4 paragraph [0079]); a flexible riser section (58) for connecting the coiled tubing stack to the wellhead in a manner that allows for angular misalignment between the coiled tubing stack and the wellhead (wherein the riser section is capable of being connected in a manner that allows for angular misalignment between the coiled tubing stack and the wellhead).

However, Roodenburg et al. does not teach a system for monitoring the load on the wellhead and activating the load compensation system when predetermined load limits are exceeded. Wetch et al. teaches a system for monitoring loads during riser assembly, installation, positioning, preloading, and supporting, wherein load cells (16) supply support load, preload, and tensioning load data to a monitoring system; and the loads are adjusted using hydraulic cylinders (13) and adjustment nuts (9). Wetch et al. suggests that it is useful to monitor such loads because flexible pipe or dynamic riser connections transfer excessive peak and/or jerk loads into the wellhead connectors when exposed to extreme environmental conditions. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roodenburg et al. by adding a system for monitoring the load as taught by Wetch et al. in order to provide increased stability and motion restraint while loading the wellhead and compensation capabilities to bring riser and loads to safe levels.

With respect to claim 2, Roodenburg et al. teaches that said frame comprises at least two legs (4,5).

With respect to claim 3, Roodenburg et al. teaches that said frame comprises an upper (3) and lower section (1) movable relative to each other such that the frame may be compacted thereby decreasing the space required to transport the frame (see page 3 paragraph [0053]).

With respect to claim 4, Roodenburg does not specifically disclose where the heave compensation mechanism is located. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to position the heave

Art Unit: 3672

mechanism in a lower section, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

With respect to claims 5 and 6, Roodenburg et al. does not teach a heave compensation mechanism with an accumulator. However, Roodenburg et al. teaches that equipment, tools and materials necessary for drilling could be added (see page 3 paragraph [0055]). It would have been obvious to one having ordinary skill in the art at the time of the invention to add an accumulator as they are commonly used in the art in heave compensation mechanisms.

With respect to claim 7, Roodenburg et al. teaches that the flexible riser section is connected to the wellhead above the sea level (see figure 2).

With respect to claim 8, Roodenburg et al. teaches that flexible riser section comprises a flexible pipe (58).

With respect to claim 9, Roodenburg et al. does not teach a pressure containing spherical joint. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to use a pressure containing spherical joint since the examiner takes official notice of the equivalence of pressure containing spherical joints and flexible pipe for their use as flexible risers and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

With respect to claim 10, Roodenburg et al. teaches that the frame (1) supports the load of a BOP (408) and coiled tubing injector and dynamic weight of coiled tubing (see figure 23).

With respect to claim 11, Roodenburg et al. teaches the flexible riser section comprises a flexible metal pipe that is connected to the wellhead above the sea level (see figure 2).

With respect to claim 12, Roodenburg et al. teaches a method of reducing the effects of heave movements of a wellhead in an offshore drilling device comprising: providing a frame (1) which supports a coiled tubing stack (496); positioning the frame proximate to the wellhead (see figure 2); and providing a heave compensation system for controlling an amount of load transferred from the coiled tubing stack to the wellhead to reduce relative movements between the coiled tubing stack and the wellhead (see page 4 paragraph [0079]).

However, Roodenburg et al. does not teach monitoring the load on the wellhead and activating the load compensation system when predetermined load limits on the wellhead are exceeded. Wetch et al. teaches a system for monitoring loads during riser assembly, installation, positioning, preloading, and supporting, wherein load cells (16) supply support load, preload, and tensioning load data to a monitoring system; and the loads are adjusted using hydraulic cylinders (13) and adjustment nuts (9). Wetch et al. suggests that it is useful to monitor such loads because flexible pipe or dynamic riser connections transfer excessive peak and/or jerk loads into the wellhead connectors when exposed to extreme environmental conditions. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roodenburg et al. by adding a system for monitoring the load as taught by Wetch et al. in order to

provide increased stability and motion restraint while loading the wellhead and compensation capabilities to bring riser and loads to safe levels.

With respect to claim 13, Roodenburg et al. teaches providing a flexible riser section (58), which connects the coiled tubing stack to the wellhead in a manner that allows for angular misalignment between the coiled tubing stack and the wellhead (wherein the riser section is capable of being connected in a manner that allows for angular misalignment between the coiled tubing stack and the wellhead).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3672


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Coy whose telephone number is 571-272-5405.

The examiner can normally be reached on M-F 8:00-5:30, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

nac


William Neuder
Primary Examiner